

Notulae to the Italian alien vascular flora: 13

Gabriele Galasso¹, Gianniantonio Domina², Claudia Angiolini³, Dario Azzaro⁴,
Gianluigi Bacchetta⁵, Enrico Banfi¹, Davide Barberis⁶, Giulio Barone²,
Fabrizio Bartolucci⁷, Alessio Bertolli⁸, Rossano Bolpagni⁹, Gianmaria Bonari¹⁰,
Luca Bracchetti¹¹, Giacomo Calvia⁵, Giuliano Campus¹², Laura Cancellieri¹³,
Viviana Cavallaro¹⁴, Fabio Conti⁷, Alba Cuenca-Lombrana⁵, Evelina D'Alessandro¹⁵,
Giusy Dal Corso¹⁶, Alice Dalla Vecchia⁹, Antonino De Natale¹⁷,
Emanuele Del Guacchio¹⁷, Giuseppe Di Gregorio¹⁸, Emilio Di Gristina²,
Mario Di Stefano⁴, Emanuele Fanfarillo³, Alessandro Federici¹⁹,
Germano Federici²⁰, Giulio Ferretti²¹, Francesco Festi⁸, Tiberio Fiaschi³,
Goffredo Filibeck¹³, Mauro Fois⁵, Luca Gariboldi²², Giovanni Gestri²³,
Leonardo Gubellini²⁴, Alessandro Guiggi²⁵, Nicole Hofmann²⁶,
Valentina L.A. Laface²⁷, Andrea Lallai⁵, Valerio Lazzeri²⁸, Angela P. Lecis²⁹,
Michele Lonati⁶, Fernando Lucchese³⁰, Jacopo Lupoletti³¹, Samuele Maestri¹³,
Andrea Mainetti³², Francesca Mantino³³, Francesco Mascia⁵, Rizzieri R. Masin³⁴,
Giacomo Mei²⁷, Marco Merli³⁵, Antonino Messina³⁶, Carmelo M. Musarella²⁷,
Ginevra Nota⁶, Nicola Olivieri³⁷, Bruno Paura³⁸, Roberto Pellegrini³⁹,
Antonio Pica⁴⁰, Marco Pittarello⁶, Lina Podda⁵, Safiya Praleskouskaya⁴¹,
Filippo Prosser⁸, Giuseppe Ratini⁴², Simone Ravetto Enri⁶, Francesco Roma-Marzio⁴³,
Giovanni Salerno³⁰, Alberto Selvaggi⁴⁴, Adriano Soldano⁴⁵, Giovanni Spampinato²⁷,
Adriano Stinca⁴⁶, Federico M. Tardella⁴⁷, Gianmarco Tavilla⁴, Valeria Tomaselli³³,
Giulia Tomasi⁸, Luca Toso⁴⁸, Roberto Venanzoni⁴¹, Lorenzo Lastrucci⁴⁹

1 Sezione di Botanica, Museo di Storia Naturale di Milano, Corso Venezia 55, 20121 Milano, Italy
2 Dipartimento di Scienze Agrarie, Alimentari e Forestali (SAAF), Università di Palermo, Viale delle Scienze, edificio 4, 90128 Palermo, Italy **3** Dipartimento di Scienze della Vita, Università di Siena, Via P.A. Mattioli 4, 53100 Siena, Italy **4** Dipartimento di Scienze Biologiche, Geologiche e Ambientali, Università di Catania, Via A. Longo 19, 95125 Catania, Italy **5** Centro Conservazione Biodiversità (CCB), Dipartimento di Scienze della Vita e dell'Ambiente (DISVA), Università di Cagliari, Viale Sant'Ignazio da Laconi 13, 09123 Cagliari, Italy **6** Dipartimento di Scienze Agrarie, Forestali e Alimentari (DISAFA), Università di Torino, Largo P. Braccini 2, 10095 Grugliasco (Torino), Italy **7** Centro Ricerche Floristiche dell'Appennino (Università di Camerino - Parco Nazionale del Gran Sasso e Monti della Laga), San Colombo, 67021 Barisciano (L'Aquila), Italy **8** Fondazione Museo Civico di Rovereto, Largo Santa Caterina 41, 38068 Rovereto (Trento), Italy **9** Dipartimento di Scienze Chimiche, della Vita e della Sostenibilità Ambientale, Università di Parma, Parco Area delle Scienze 33/a, 43124 Parma, Italy **10** Facoltà di Scienze e Tecnologie, Libera Università di Bolzano, Piazza Università 5, 39100 Bolzano, Italy **11** Scuola di Bioscienze e Medicina Veterinaria, Università di Camerino, Via Gentile III da Varano, 62032 Camerino (Macerata), Italy **12** Via G. Rossini 69, 09045 Quartu Sant'Elena (Cagliari), Italy **13** Dipartimento di Scienze Agrarie e Forestali (DAFNE),

Università della Tuscia, Via San Camillo de Lellis snc, 01100 Viterbo, Italy **14** *Museo Orto Botanico, Università di Bari Aldo Moro, Via E. Orabona 4, 70125 Bari, Italy* **15** *Piazza Molise 13/f, 86100 Campobasso, Italy* **16** *Via G.B. Zenati 15, 37060 Buttapietra (Verona), Italy* **17** *Dipartimento di Biologia, Università di Napoli Federico II, Via Vicinale Cupa Cintia 21, 80126 Napoli, Italy* **18** *Via Monte Bonifato 2, 90146 Palermo, Italy* **19** *Via Civitanova Marche 25, 25040 Esine (Brescia), Italy* **20** *Piazza Madonna delle Nevi 17, 24068 Seriate (Bergamo), Italy* **21** *Dipartimento di Biologia, Università di Firenze, Via G. La Pira 4, 50121 Firenze, Italy* **22** *Via Ghisolfi 3, 20017 Rho (Milano), Italy* **23** *Via B. Bonfiglioli 30, 59100 Prato, Italy* **24** *Centro Ricerche Floristiche Marche, Provincia di Pesaro e Urbino, Via E. Barsanti 18, 61122 Pesaro (Pesaro e Urbino), Italy* **25** *Dipartimento di Scienze della Terra, dell'Ambiente e della Vita (DISTAV), Università di Genova, Corso Europa 26, 16132 Genova, Italy* **26** *Dipartimento di Scienze Agrarie, Alimentari ed Ambientali (D3A), Università Politecnica delle Marche, Via Brecce Bianche 10, 60131 Ancona, Italy* **27** *Dipartimento di Agraria, Università Mediterranea di Reggio Calabria, Località Feo di Vito snc, 89122 Reggio Calabria, Italy* **28** *Associazione Amici della Natura, c/o Museo di Storia Naturale di Rosignano Marittimo, Via E. De Filippo 6, 57016 Rosignano Marittimo (Livorno), Italy* **29** *Stazione di Uta, Corpo Forestale e di Vigilanza Ambientale (CFVA), Sesta Strada Ovest, 09068 Uta, fraz. Macchiareddu (Cagliari), Italy* **30** *Dipartimento di Scienze, Università di Roma Tre, Viale G. Marconi 446, 00146 Roma, Italy* **31** *Vico del Sacco 22, 64032 Atri (Teramo), Italy* **32** *Ufficio Conservazione botanico-forestale, Parco Nazionale Gran Paradiso, Frazione Valnontey 44, 11012 Cogne (Aosta), Italy* **33** *Dipartimento di Biologia, Università di Bari Aldo Moro, Via E. Orabona 4, 70125 Bari, Italy* **34** *Via Regazzoni Bassa 3, 35036 Montegrotto Terme (Padova), Italy* **35** *Via dei Caputèi 7, 38070 Stenico, fraz. Sclemo (Trento), Italy* **36** *Via G. Giunti 19, 59013 Montemurlo (Prato), Italy* **37** *Via Maestri del Lavoro 40, 64100 Teramo, Italy* **38** *Dipartimento di Agricoltura, Ambiente e Alimenti, Università del Molise, Via F. De Sanctis 1, 86100 Campobasso, Italy* **39** *Via P. Mascagni 41, 51017 Pescia (Pistoia), Italy* **40** *Via Strada Storta 11, 66100 Chieti, Italy* **41** *Dipartimento di Chimica, Biologia e Biotecnologie, Università di Perugia, Via del Giochetto 6, 06122 Perugia, Italy* **42** *Via della Lepre 11, 05100 Terni, Italy* **43** *Sistema Museale di Ateneo, Orto e Museo Botanico, Università di Pisa, Via L. Ghini 13, 56126 Pisa, Italy* **44** *Istituto per le Piante da Legno e l'Ambiente (IPLA), Corso Casale 476, 10132 Torino, Italy* **45** *Largo Brigata Cagliari 6, 13100 Vercelli, Italy* **46** *Dipartimento di Scienze e Tecnologie Ambientali, Biologiche e Farmaceutiche, Università della Campania Luigi Vanvitelli, Via A. Vivaldi 43, 81100 Caserta, Italy* **47** *Herbarium Universitatis Camerinensis, Scuola di Bioscienze e Medicina Veterinaria, Università di Camerino, Via Pontoni 5, 62032 Camerino, Italy* **48** *Via Pegorina 548, 35040 Casale di Scodosia (Padova), Italy* **49** *Sistema Museale di Ateneo, Università di Firenze, Via G. La Pira 4, 50121 Firenze, Italy*

Corresponding author: Author (gabriele.galasso@comune.milano.it)

Academic editor: Lorenzo Peruzzi | Received 26 April 2022 | Accepted 3 May 2022 | Published 11 May 2022

Citation: Galasso G, Domina G, Angiolini C, Azzaro D, Bacchetta G, Banfi E, Barberis D, Barone G, Bartolucci F, Bertolli A, Bolpagni R, Bonari G, Bracchetti L, Calvia G, Campus G, Cancellieri L, Cavallaro V, Conti F, Cuena-Lombraña A, D'Alessandro E, Dal Corso G, Dalla Vecchia A, De Natale A, Del Guacchio E, Di Gregorio G, Di Gristina E, Di Stefano M, Fanfarillo E, Federici A, Federici G, Ferretti G, Festi F, Fiaschi T, Filibeck G, Fois M, Gariboldi L, Gestri G, Gubellini L, Guiggi A, Hofmann N, Laface VLA, Lallai A, Lazzeri V, Lecis AP, Lonati M, Lucchese F, Lupoletti J, Maestri S, Mainetti A, Mantino F, Mascia F, Masin RR, Mei G, Merli M, Messina A, Musarella CM, Nota G, Olivieri N, Paura B, Pellegrini R, Pica A, Pittarello M, Podda L, Praleskouskaya S, Prosser F, Ratini G, Ravetto Enri S, Roma-Marzio F, Salerno G, Selvaggi A, Soldano A, Spampinato G, Stinca A, Tardella FM, Tavilla G, Tomaselli V, Tomasi G, Toso L, Venanzoni R, Lastrucci L (2022) Notulae to the Italian alien vascular flora: 13. Italian Botanist 13: 27–44. <https://doi.org/10.3897/italianbotanist.13.85863>

Abstract

In this contribution, new data concerning the distribution of vascular flora alien to Italy are presented. It includes new records, confirmations, exclusions, and status changes for Italy or for Italian administrative regions. Nomenclatural and distribution updates published elsewhere are provided as Suppl. material 1.

Keywords

Alien species, floristic data, Italy, nomenclature

How to contribute

The text for the new records should be submitted electronically to Lorenzo Lastrucci (lorenzo.lastrucci@unifi.it). The corresponding specimen along with its scan or photograph has to be sent to FI Herbarium: Museo di Storia Naturale (Botanica), Sistema Museale di Ateneo, Via G. La Pira 4, 50121 Firenze (Italy). Those texts concerning nomenclatural novelties (typifications only for accepted names), status changes, exclusions, and confirmations should be submitted electronically to Gabriele Galasso (gabriele.galasso@comune.milano.it). Each text should be within 1,000 characters (spaces included).

Floristic records***Acer negundo* L. (Sapindaceae)**

+ (INV) **TOS.** – Status change from naturalized to invasive alien for the flora of Toscana.

The presence of *Acer negundo* is increasingly common in disturbed areas of Toscana. Numerous individuals colonize urban areas and roadsides (Peruzzi and Bedini 2022+). From observations made in 2020 in the provinces of Siena and Arezzo, we noticed that in some areas with a strong disturbance the species grows abundant, sometimes in dense stands. In Chiusi [(Siena), fraz. Montallese, lungo la strada SP326, WGS84: 43.052790°N, 11.920611°E, margini stradali e ambienti ruderali, 255 m, 17 September 2021, T. Fiaschi, E. Fanfarillo (SIENA)] and other localities (e.g., Monteriggioni (Siena), WGS84: 43.392968°N, 11.217782°E), we observed abundant, fructifying adult individuals and seedlings. We therefore propose the change of status from naturalized to invasive.

C. Angiolini, E. Fanfarillo, T. Fiaschi

***Allium tuberosum* Rottler ex Spreng. (Amaryllidaceae)**

+ (CAS) **LOM:** Seriate (Bergamo), Via G. Venezian, rotatoria del ponte sul Fiume Serio per Via C. Cerioli (CFCE: 0324/1) (WGS84: 45.689694°N, 9.721861°E), scarpata erbosa, 252 m, no exp., 13 November 2021, leg. G. Federici, det. E. Banfi, G. Galasso (BER-HbFAB No. 107483); *ibidem*, 15 November 2021, leg. G. Federici, det.

E. Banfi, *G. Galasso* (FI, MSNM Nos. 51386, 51387, 51388, 51389). – Casual alien species new for the flora of Lombardia.

G. Federici, E. Banfi, G. Galasso

***Amaryllis belladonna* L. (Amaryllidaceae)**

+ (CAS) **SAR**: Carbonia (Sud Sardegna), Domu Beccia (WGS84: 39.223889°N, 8.483611°E), scarpata incolta a bordo strada, 148 m, 16 September 2021, leg. *A. Mammoliti*, det. *V.L.A. Laface*, *C.M. Musarella*, *G. Spampinato* (FI). – Casual alien species new for the flora of Sardegna.

V.L.A. Laface, C.M. Musarella, G. Spampinato

***Ambrosia artemisiifolia* L. (Asteraceae)**

+ (NAT) **UMB**: Orvieto (Terni), Lago di Corbara (WGS84: 42.726658°N, 12.247858°E), greto sassoso della parte alta delle sponde del Lago di Corbara, con *Xanthium italicum*, 135 m, 28 August 2020, *R. Venanzoni*, *S. Praleskouskaya* (FI, PERU barcode PERU-2099). – Naturalized alien species new for the flora of Umbria.

R. Venanzoni, S. Praleskouskaya

***Ammannia verticillata* (Ard.) Lam. (Lythraceae)**

+ (NAT) **VEN**: Vigasio (Verona), Corte Brigafatta Nuova (WGS84: 45.327162°N, 10.970611°E), risaia, 37 m, 5 September 2021, leg. *G. Dal Corso*, det. *F. Prosser* (ROV No. 80116); *ibidem*, 7 October 2021, leg. *G. Dal Corso*, det. *F. Prosser* (FI). – Naturalized alien species confirmed for the flora of Veneto.

This species was historically widespread in the Venetian ricefields (Argenti et al. 2019), in which today it is almost totally replaced by *Ammannia coccinea* Rottb. Vigasio is among the localities reported by Goiran (1900) for the province of Verona.

G. Dal Corso, F. Prosser

***Bidens aurea* (Aiton) Sherff (Asteraceae)**

+ (CAS) **MAR**: Porto Sant'Elpidio (Fermo), Via XX Settembre, nei pressi di un cortile di una abitazione privata (WGS84: 43.237452°N, 13.756926°E), 21 m, 3 January 2021, *A. Pica*, *J. Lupoletti* (FI). – Casual alien species new for the flora of Marche.

The species covered about 10 m². It probably escaped from flowerbeds along the main road.

A. Pica, J. Lupoletti

***Bidens connata* Muhl. ex Willd. (Asteraceae)**

+ (NAT) **UMB**: Perugia (Perugia), fraz. Ponte San Giovanni, sponda destra del Tevere a monte del Nuovo Ponte vecchio (WGS84: 43.09193055°N, 12.45186388°E),

183 m, 18 October 2020, *R. Venanzoni, S. Praleskouskaya* (FI, PERU barcode PERU-2102). – Naturalized alien species new for the Flora of Umbria.

The species can be found sporadically to frequently along the banks of the river Tevere in Umbria.

R. Venanzoni, S. Praleskouskaya

***Bidens sulphurea* (Cav.) Sch.Bip. (Asteraceae)**

+ (CAS) **TAA**: Roncegno Terme (Trento), Cadenzi (WGS84: 46.052056°N, 11.403447°E), margine stradina presso orti, avventizia, 584 m, 18 October 2020, *F. Prosser* (FI). – Casual alien species new for the flora of Trentino-Alto Adige.

This species was also observed in San Lorenzo Dorsino (Trento), loc. Glolo (6 September 2021, obs. *M. Merli*, det. *E. Banfi*).

F. Prosser, M. Merli, E. Banfi

***Cardiospermum halicacabum* L. (Sapindaceae)**

+ (CAS) **LAZ**: Roma (Roma), parco pubblico presso Via di Grotta Perfetta (WGS84: 41.828746°N, 12.516325°E), siepe, dove si arrampica su individui di *Olea europaea*, *Pittosporum tobira* e *Phyllostachys* sp., ca. 254 m, 3 October 2021, *N. Olivieri* (FI). – Casual alien species new for the flora of Lazio.

N. Olivieri

***Cedrus atlantica* (Endl.) G.Manetti ex Carrière (Pinaceae)**

+ (CAS) **PIE**: Almese (Torino), al di sotto della pista tagliafuoco del Musinè (WGS84: 45.105475°N, 7.442177°E), popolamento misto di latifoglie autoctone e individui adulti di *Cedrus atlantica* derivanti da rimboschimento, 350 m, 20 May 2021, *D. Barberis, A. Mainetti, G. Nota* (FI). – Casual alien species new for the flora of Piemonte.

Several young individuals were found in a mixed stand with native broadleaf trees and a few planted *Cedrus atlantica* trees. The young specimens varied in height from 20 cm to 2 m.

D. Barberis, A. Mainetti, G. Nota

***Chamaecyparis lawsoniana* (A.Murray) Parl. (Cupressaceae)**

+ (CAS) **PIE**: Germagnano (Torino), loc. Colbeltramo, scarpata della strada che collega Colbeltramo a Castagnole (WGS84: 45.252557°N, 7.440891°E), scarpata stradale, 668 m, 2 April 2021, *M. Lonati, M. Pittarello, S. Ravetto Enri* (FI). – Casual alien species new for the flora of Piemonte.

A young individual, about 80 cm tall, was found in a shady area under broadleaf trees.

M. Lonati, M. Pittarello, S. Ravetto Enri

***Cotoneaster salicifolius* Franch. (Rosaceae)**

+ (CAS) **MAR**: Fermignano (Pesaro e Urbino), loc. Serra Alta (WGS84: 43.659679°N, 12.645607°E), scarpata stradale ai margini di una boscaglia diradata, ca. 340 m, 5 December 2021, *N. Hofmann* (FI, PESA). – Casual alien species new for the flora of Marche.

A single individual (2–3 m tall) has been observed.

L. Gubellini, N. Hofmann

***Cyperus odoratus* L. (Cyperaceae)**

+ (INV) **ITALIA (UMB)**: Magione (Perugia), fraz. San Feliciano, Oasi La Valle (WGS84: 43.106111°N, 12.184722°E), sui resti del canneto degradato (morto!), vegetazione a dominanza di *Cyperus fuscus*, 280 m, 18 August 2021, *R. Venanzoni, S. Praleskouskaya* (FI, PERU barcode PERU-2091); Tuoro sul Trasimeno (Perugia), Punta Navaccia (WGS84: 43.189981°N, 12.075511°E), al margine del canneto, 258 m, 18 September 2021, *R. Venanzoni, S. Praleskouskaya* (PERU barcode PERU-2100). – Status change from naturalized to invasive alien for the flora of Italy; invasive alien species new for the Flora of Umbria.

In Umbria, *Cyperus odoratus* is found in the strongly nitrophilous muddy beach of Lake Trasimeno covered by vegetation with *Cyperus fuscus* L. and *Oxybasis chenopodioides* (L.) S.Fuentes, Uotila & Borsch. In various sites, it tends to form locally dense populations of the sublittoral belt.

R. Venanzoni, S. Praleskouskaya

***Datura inoxia* Mill. (Solanaceae)**

– **CAM**. – Alien species to be excluded from the flora of Campania.

The indication in Galasso et al. (2018) is based on the report for Cilento (“Torre Ficaiola”, i.e., Spiaggia Ficaiola near Torre Caprioli, Pisciotta municipality, Salerno province) by De Natale and Strumia (2007), already questioned by Del Guacchio and La Valva (2017). The relevant specimen (Torre Caprioli, 6 July 1998, *Herb. A. De Natale* No. 3671) is to be attributed to *Datura wrightii* Regel, indeed new to Cilento.

E. Del Guacchio, A. De Natale

***Eclipta prostrata* (L.) L. (Asteraceae)**

+ (NAT) **MAR**. – Status change from casual to naturalized alien for the flora of Marche.

This species was recorded as casual in the Natural Reserve of Sentina (Conti and Bracchetti 2016), where it is no longer present due to the erosion of the coast. In the new locality [Grottammare (Ascoli Piceno), tra Cupra Marittima e Grottammare, WGS84: 43.008825°N, 13.865765°E, spiaggia, 1 m, 16 October 2018, *F. Conti, L. Bracchetti* (APP)], a well-established population can be found.

F. Conti, L. Bracchetti

***Elaeagnus pungens* Thunb. (Elaeagnaceae)**

+ (CAS) **TOS**: Pistoia (Pistoia), fraz. Santomoro, sopra il paese presso Case Buchetole (WGS84: 43.582308°N, 10.584183°E), margine sentiero, ca. 440 m, 12 December 2021, leg. G. Gestri, P. Sandretti, det. G. Gestri, V. Lazzeri (FI). – Casual alien species new for the flora of Toscana.

An adult plant with flowers and fruits occurs on the edge of a trail, with no current evidence of spontaneous reproduction.

G. Gestri

***Eragrostis pectinacea* (Michx.) Nees (Poaceae)**

+ (NAT) **TOS**. – Status change from casual to naturalized alien for the flora of Toscana.

This species is widespread in the lower stretch of the river Tevere [Pieve Santo Stefano (Arezzo), Lago di Montedoglio (WG84: 43.625417°N, 12.073081°E), sponde melmose originatesi al ritiro delle acque, 384 m, 20 August 2021, R. Venanzoni (FI, PERU barcode PERU-2113)]. It prefers the large stretches of stony and sandy beaches that emerge when the water withdraws.

R. Venanzoni, S. Praleskouskaya

***Erigeron lilacinus* (Sennikov & Kurtto) Sennikov (Asteraceae)**

+ (CAS) **LOM**: Milano (Milano), Parco Porto di Mare (WGS84: 45.431045°N, 9.231650°E), margine erboso, 103 m, no exp., 27 September 2020, G. Galasso, E. Banfi (MSNM No. 51428); *ibidem*, Via L. Ornato, lato dei numeri dispari, parcheggi sul lato della strada (WGS84: 45.520955°N, 9.191965°E), tra gli autobloccanti, 138 m, no exp., 19 June 2021, G. Galasso (FI). – Casual alien species new for the flora of Lombardia.

G. Galasso, E. Banfi

***Euphorbia nutans* Lag. (Euphorbiaceae)**

+ (NAT) **PUG**. – Status change from casual to naturalized alien for the flora of Puglia.

The population here reported [Taranto (Taranto), Mar Piccolo, Palude La Vela, WGS84: 40.476035°N, 17.325862°E, bordo strada, 10 m, 15 October 2021, V. Tomaselli, F. Mantino (FI, BI Nos. 42845, 42846, 42847, 42848)] consists of a few thousand individuals, regularly fruiting, widespread along roadsides.

V. Tomaselli, V. Cavallaro, F. Mantino

***Fraxinus pennsylvanica* Marshall (Oleaceae)**

+ (CAS) **ITALIA (VEN)**: Verona (Verona), stazione dei treni di Verona Porta Nuova (CFCE: 0531/4) (WGS84: 45.428849°N, 10.977357°E), incolto ghiaioso, 64 m, 2 July 2021, leg. F. Prosser, A. Bertolli, G. Tomasi, det. F. Prosser (FI). – Casual alien species new for the flora of Italy (Veneto).

This species was identified according to Atha and Boom (2017). At least three 50–150 cm tall specimens were observed, born spontaneously from trees growing in the adjacent Via delle Coste. In some central European countries, *F. pennsylvanica* is an invasive species in riparian environments (Verloove 2016).

F. Prosser, G. Tomasi, A. Bertolli

***Gamochaeta pennsylvanica* (Willd.) Cabrera (Asteraceae)**

+ (NAT) **TAA**: Trento (Trento), cortile in Via Vittorio Veneto (CFCE: 9932/2) (WGS84: 46.058487°N, 11.120500°E), aiuola erbosa poco curata, popolazione di oltre 100 esemplari (ca. 25 m²) in fiore, in frutto e sterili, 194 m, 20 October 2021, *F. Prosser* (FI, ROV No. 80117). – Naturalized alien species new for the flora of Trentino-Alto Adige.

F. Prosser

***Hedera canariensis* Willd. (Araliaceae)**

+ (NAT) **TAA**: Bondone (Trento), a W di loc. Olte, a W di Baitoni (CFCE: 0129/3) (WGS84: 45.806493°N, 10.533911°E), boscaglia, 370 m, 18 October 2011, leg. *F. Prosser*, *A. Bertolli*, det. *F. Prosser* (FI, ROV No. 61339). – Naturalized alien species new for the flora of Trentino-Alto Adige.

F. Prosser, A. Bertolli

***Hedera hibernica* (G.Kirchn.) Bean (Araliaceae)**

+ (NAT) **VEN**: Bardolino (Verona), ca. 1 km a ENE di Bardolino, nella valletta con rivo a E di Monte Felice (CFCE: 0430/1) (WGS84: 45.554684°N, 10.739976°E), bosco termofilo, 180 m, 28 February 2004, *F. Prosser* (FI, ROV No. 44952); Torri del Benaco (Verona), a E di Punta Pontiola (WGS84: 45.618434°N, 10.701830°E), 240 m, 11 October 2006, leg. *F. Prosser*, *A. Bertolli*, det. *F. Prosser* (ROV No. 50876); Verona (Verona), fraz. Parona, stazione dei treni (CFCE: 0531/2) (WGS84: 45.477532°N, 10.941611°E), margine di massicciata, inselvatichita, tricomi appressati, in media con poco meno di 10 raggi, 75 m, 10 September 2020, leg. *F. Prosser*, *A. Bertolli*, *G. Tomasi*, det. *F. Prosser* (ROV No. 79310); *ibidem*, a W di Ca' di David presso Ca' Brusà (CFCE: 0631/2) (WGS84: 45.386698°N, 10.962959°E), siepe al margine della strada, 53 m, 27 October 2020, *F. Prosser*, *G. Tomasi*, *M. Gecchelin* (ROV No. 80038); Villafranca di Verona (Verona), lungo la linea ferroviaria dismessa a NW di Castel d'Azzano (CFCE: 0631/2) (WGS84: 45.364584°N, 10.920721°E), inselvatichita nel cespuglieto, 50 m, 27 October 2020, leg. *F. Prosser*, *G. Tomasi*, *M. Gecchelin*, det. *F. Prosser* (ROV No. 79588); Dolcè (Verona), fraz. Peri, stazione dei treni (WGS84: 45.660533°N, 10.901149°E), 129 m, 8 April 2021, *A. Bertolli*, *F. Prosser* (ROV No. 80123). – Naturalized alien species new for the flora of Veneto.

Hedera hibernica is quite widespread and was probably, at least partially, confused with *H. canariensis* Willd. by Argenti et al. (2019).

F. Prosser, A. Bertolli, F. Festi, G. Tomasi

***Jaborosa integrifolia* Lam. (Solanaceae)**

+ (NAT) **SAR.** – Status change from casual to naturalized alien for the flora of Sardegna.

Since the first report in 2011 (Podda et al. 2012), this species has been observed naturalized in the countryside of Batteria Boggio (Pula, Cagliari), near its first site known in loc. Is Loccis Santus (San Giovanni Suergiu, Sud Sardegna) and near Perdaxius and Terraseo (Narcao, Sud Sardegna).

G. Bacchetta, G. Calvia, A. Lallai

***Lagarosiphon major* (Ridl.) Moss (Hydrocharitaceae)**

+ (NAT) **EMR:** Sissa Trecasali (Parma), porto fluviale di Torricella di Sissa, vicino alla sponda (WGS84: 44.987640°N, 10.294034°E), profondità 0.5 m, 24 July 2019, R. Bolpagni, A. Dalla Vecchia (FI barcode FI065222). – Naturalized alien species new for the flora of Emilia-Romagna.

Lagarosiphon major is one of the most widespread and noxious invasive aquatic species in Europe and globally (Bolpagni 2021). It is, indeed, included in the European list of alien species of Union concern [Reg. (EU) no. 1143/2014]. In the river port of Torricella di Sissa, it forms small monophytic stands.

R. Bolpagni, A. Dalla Vecchia

***Miscanthus × longiberbis* (Hack.) Nakai (Poaceae)**

+ (CAS) **ITALIA (LOM):** Iseo (Brescia), a S della rotonda tra Via per Rovato (Via Tangenziale Sud) e Viale Roma (WGS84: 45.649400°N, 10.042614°E), incolto, 191 m, no exp., 16 October 2021, leg. A. Federici, det. E. Banfi, G. Galasso (FI, MSNM Nos. 51406, 51407). – Casual alien nothospecies new for the flora of Italy (Lombardia).

This is a natural sterile hybrid between *Miscanthus sacchariflorus* (Maxim.) Benth. & Hook.f. ex Franch. (China, Korea, Japan) and *M. sinensis* Andersson (China, SE-Asia), no longer cultivated in Italy as an ornamental. It can be distinguished from *M. sinensis* by culms up to 2.5(–3.5) m, callus hairs 2–4 times as long as spikelet, spikelets unawned, and from *M. sacchariflorus* by pedicels of pedicellate spikelets mostly longer than 3 mm (Ibaragi et al. 2017).

E. Banfi, G. Galasso, A. Federici

***Nymphaea mexicana* Zucc. (Nymphaeaceae)**

+ (NAT) **TOS:** Castelnuovo Berardenga (Siena), nei pressi del Mulino di Piermaggiore sulla strada SP9 di Pievasciata (WGS84: 43.387002°N, 11.405236°E), laghetto artificiale, 272 m, 5 July 2021, leg. G. Bonari, T. Fiaschi, det. C. Angiolini, G. Bonari, T. Fiaschi (FI, SIENA). – Naturalized alien species new for the flora of Toscana.

This population widely colonizes the surface of an artificial lake. We detected numerous flowering individuals. This species is similar to the sterile hybrid *Nymphaea × thiona*

D.B. Ward, but the two taxa differ, according to Ward (1977), by the dimensions of the sepals (3–5 cm in *N. mexicana* vs 5–8 cm in *N. × thiona*).

C. Angiolini, G. Bonari, T. Fiaschi

***Opuntia anacantha* Speg. (Cactaceae)**

+ (CAS) **SAR**: Oschiri (Sassari), Diga Coghinas, rupi a ridosso della strada presso la chiesetta di Santa Barbara (WGS84: 40.788700°N, 9.024265°E), rupi, 205 m, 23 August 2019, G. Calvia (FI). – Casual alien species new for the flora of Sardegna.

In Oschiri the plant produces flowers and fruits, but its reproduction is primarily vegetative by cladode detachment or by the rooting of sterile fruits.

G. Calvia, A. Guiggi

***Opuntia engelmannii* Salm-Dyck ex Engelm. (Cactaceae)**

+ (NAT) **UMB**: Amelia (Terni), fraz. Fornole (WGS84: 42.539353°N, 12.459980°E), incolto con vegetazione a *Stipa bromoides* e *Cymbopogon hirtus*, 305 m, S-SE, 22 February 2022, R. Venanzoni (FI, PERU barcode PERU-2109); Montecchio (Terni), strada locale direzione Melezzole-Montecchio, scarpata inferiore della strada (WGS84: 42.668347°N, 12.305811°E), scarpata stradale, 633 m, S, 22 February 2022, R. Venanzoni (FI, PERU barcode PERU-2108); Spello (Perugia), fraz. Capitan Loreto, strada SS75bis Foligno-Perugia, prima dell'uscita per Capitan Loreto direzione Perugia, sommità della scarpata destra (WGS84: 43.017289°N, 12.647450°E), scarpata stradale, 210 m, SW, 22 February 2022, leg. R. Venanzoni, det. F. Lucchese, A. Guiggi (FI, PERU barcode PERU-2110). – Naturalized alien species new for the flora of Umbria.

Populations of this species have been observed for decades.

G. Ratini, A. Guiggi, F. Lucchese, R. Venanzoni

***Opuntia pilifera* F.A.C. Weber (Cactaceae)**

+ (CAS) **SIC**: Aci Castello (Catania), Scogliera Cannizzaro (WGS84: 37.538144°N, 15.131077°E), scogliera, 20 m, 10 October 2021, leg. G. Spampinato, det. V.L.A. Laface, C.M. Musarella, G. Spampinato (FI, REGGIO). – Casual alien species new for the flora of Sicilia.

In Sicily, *O. pilifera* grows along cliffs, on basaltic rocks of volcanic origin, where it lives with other *Opuntia* species.

V.L.A. Laface, C.M. Musarella, G. Spampinato

***Opuntia spinulifera* Salm-Dyck (Cactaceae)**

+ (NAT) **SIC**: Terrasini (Palermo), Baia San Cataldo (WGS84: 38.089721°N, 13.077674°E), sea cliffs, 20 m, 28 April 2021, G. Domina (FI, PAL). – Naturalized alien species new for the flora of Sicilia.

A discontinuous area of over 200 m² near the coast is covered by this species, which reproduces abundantly by seed and vegetatively. In the Favorita Park, in the suburbs of Palermo, some individuals of the same species reproduce by seed and propagate vegetatively.

G. Barone, G. Di Gregorio

***Oxalis articulata* Savigny (Oxalidaceae)**

+ (CAS) **MAR.** – Alien status indication for the flora of Marche.

Oxalis articulata was indicated for the Marche without invasiveness status by Galasso et al. (2018). However, several individuals, escaped from cultivation, have been found by us in many localities of the municipalities of Cagli, Cantiano, Piandimeleto, and Mercatello. According to these observations, *O. articulata* should be considered casual for this administrative region.

G. Mei, A. Stinca

***Panicum dichotomiflorum* Michx. (Poaceae)**

+ (NAT) **UMB:** Baschi (Terni), Lago di Corbara, sponda destra (WGS84: 42.718358°N, 12.258800°E), sponde ciottolose e sabbiose con vegetazione a *Xanthium italicum* e *Abutilon theophrasti*, 134 m, September 2020, leg. R. Venanzoni, S. Praleskouskaya, det. F.M. Tardella (FI, PERU barcode PERU-2104). – Naturalized alien species new for the Flora of Umbria.

R. Venanzoni, S. Praleskouskaya, F.M. Tardella

***Persicaria filiformis* (Thunb.) Nakai (Polygonaceae)**

+ (CAS) **PIE:** Baveno (Verbano-Cusio-Ossola), Via Liberazione (WGS84: 45.911556°N, 8.504567°E), spigolo tra la strada e il marciapiede, 204 m, no exp., 1 October 2021, G. Galasso (FI, MSNM Nos. 51192, 51193); *ibidem*, leg. A. Selvaggi, det. G. Galasso (*Herb. A. Selvaggi*). – Casual alien species new for the flora of Piemonte.

A large clump of individuals of this species was observed.

G. Galasso, L. Gariboldi, A. Selvaggi

***Physalis angulata* L. (Solanaceae)**

+ (NAT) **SAR:** Villaspeciosa (Sud Sardegna), loc. Cuaddu Moriscu, Lago del Cixerri (WGS84: 39.275651°N, 8.861169°E), pratelli umidi sulle rive del lago, 39 m, 26 October 2021, A.P. Lecis, F. Mascia, L. Podda (FI, CAG). – Naturalized alien species new for the flora of Sardegna.

Hundreds of individuals were found sparsely along the shores of the Cixerri dam, occupying an area of approximately 5,000 m². We observed a tendency of the species to colonise also the adjacent areas due to its edible fruits dispersed by animals.

A.P. Lecis, F. Mascia, L. Podda

***Pinus nigra* J.F.Arnold subsp. *nigra* (Pinaceae)**

+ (CAS) **SIC**: Isnello (Palermo), Madonie, Piano Zucchi, edge of the road SP54 (WGS84: 37.889805°N, 13.999320°E), on a stone wall, 1150 m, 3 June 2021, *E. Di Gristina* (FI, PAL). – Casual alien subspecies new for the flora of Sicilia.

Some individuals grow on a vertical stone wall in the Madonie Regional Park, born from seeds produced by trees growing in a nearby reforested area.

E. Di Gristina, G. Barone

***Portulaca grandiflora* Hook. (Portulacaceae)**

+ (CAS) **PUG**: Brindisi (Brindisi), Via Taranto tra i numeri civici 3 e 29 (WGS84: 40.633188°N, 17.943848°E), interstizi del marciapiede, 25 m, 23 June 2021, *F. Roma-Marzio* 1416 (FI, PI No. 044613). – Casual alien species new for the flora of Puglia.

The flowers of *Portulaca grandiflora* may occur with petals of different colours from yellow to magenta, and can show a double whorl of petals (Ocampus and Travis Columbus 2012). About ten plants were found, all with yellow petals.

F. Roma-Marzio

***Pueraria lobata* (Willd.) Ohwi (Fabaceae)**

+ (INV) **TOS**: Scandicci (Firenze), in prossimità dell'ingresso del Centro Don Gnocchi (WGS84: 43.760264°N, 11.205463°E), area incolta adiacente a un'azienda vivaistica, in contesto periurbano, 14 September 2021, *G. Ferretti* (FI); *ibidem*, 10 November 2021, *G. Ferretti* (FI). – Invasive alien species new for the flora of Toscana.

Pueraria lobata is a particularly noxious, invasive, densely-packed climbing species, considered among the 100 world's most invasive alien species (Lowe et al. 2004) and included in the black list of invasive alien species of Union concern [Reg. (EU) no. 2016/1141]. It has invaded an area of about 200 m², even climbing on some trees. This species shows a strong tendency to expand, even when limited by an urban context.

G. Ferretti

***Rubus laciniatus* Weston (Rosaceae)**

+ (NAT) **TOS**. – Status change from casual to naturalized alien for the flora of Toscana.

The species was recently recorded as casual alien in Toscana by Canzonieri et al. (2022). In Agliana (Pistoia) a few fruiting plants of fair size were observed among other brambles and roses in an extended uncultivated ground periodically mowed only in the area facing the park (loc. Castelletto, di fronte al centro commerciale di Via E. Berlinguer, WGS84: 43.909620°N, 10.996292°E, ca 45 m, 3 July 2021, *A. Messina*, FI).

A. Messina, G. Gestri

***Sedum palmeri* S.Watson**

+ (NAT) **LOM**. – Status change from casual to naturalized alien for the flora of Lombardia.

In Milano *Sedum palmeri* is largely naturalized on the masonry banks of the Naviglio della Martesana, with dozens of individuals for a stretch of at least 1.7 km in length (WGS84: from 45.514009°N, 9.253945°E to 45.504995°N, 9.237820°E).

G. Galasso, E. Banfi

***Setaria adhaerens* (Forssk.) Chiov. (Poaceae)**

+ (NAT) **LOM**: Breno (Brescia), loc. Lavarino, a monte della strada (Via Laverino Inferiore) per Case Bruciate (WGS84: 45.959875°N, 10.315386°E), margine stradale erboso, ca. 340 m, WNW, 24 October 2020, leg. et det. A. Federici, conf. E. Banfi, G. Galasso (FI ex Hb. E. Bona No. 071242); *ibidem*, 9 November 2021, leg. et det. A. Federici, conf. E. Banfi, G. Galasso (MSNM No. 51401). – Naturalized alien species new for the flora of Lombardia.

The species was observed also along Via Vigne in Piancogno (Brescia province, WGS84: 45.929961°N, 10.238172°E, 383 m, SE, 2021, obs. A. Federici).

E. Banfi, A. Federici, G. Galasso

***Sicyos angulatus* L. (Cucurbitaceae)**

+ (NAT) **MOL**: Oratino (Campobasso), argini del Fiume Biferno in loc. Bivaro (WGS84: 41.584596°N, 14.559886°E), argine fluviale, 395 m, 25 September 2021, G. Salerno, E. D'Alessandro, B. Paura (FI, Herb. G. Salerno). – Naturalized alien species new for the flora of Molise.

G. Salerno, E. D'Alessandro, B. Paura

***Solanum sisymbriifolium* Lam. (Solanaceae)**

+ (NAT) **SIC**: Pozzallo (Ragusa), Lungomare Pietrenere (WGS84: 36.729444°N, 14.851944°E), aiuole, 3 m, 20 August 2018, A. Soldano 18531 (FI). – Naturalized alien species new for the flora of Sicilia.

Many individuals were observed along the seafront where the species was missing in previous years.

A. Soldano

***Sporobolus indicus* (L.) R.Br. (Poaceae)**

+ (NAT) **SAR**. – Status change from casual to naturalized alien for the flora of Sardegna.

This species was detected in 2016 (Campus and De Pascali 2017) near the Brotzu Hospital of Cagliari, where currently it has disappeared. In recent years, we have found it in Nora and Pula (Pula, Cagliari), where it was first introduced in green lawns and then started to produce viable seeds that are germinating in neighbouring areas.

M. Fois, A. Cuenca-Lombraña, G. Campus

***Strigosella africana* (L.) Botsch. (Brassicaceae)**

+ (CAS) **TOS**: Montale (Pistoia), sopra Fognano, presso la zona di atterraggio elicotteri di soccorso (WGS84: 43.572342°N, 11.022752°E), incolto erboso periodicamente sfalcato, ca. 215 m, 14 April 2019, leg. G. Gestri, det. G. Gestri, V. Lazzeri (FI). – Casual alien species new for the flora of Toscana.

A few fruiting plants were observed.

G. Gestri, V. Lazzeri

***Styphnolobium japonicum* (L.) Schott (Fabaceae)**

+ (CAS) **SIC**: Catania (Catania), Via Ipogeo (WGS84: 37.512634°N, 15.079921°E), bordo strada, 38 m, 26 November 2021, leg. C.M. Musarella, det. V.L.A. Laface, C.M. Musarella, G. Spampinato (FI, REGGIO). – Casual alien species new for the flora of Sicilia.

V.L.A. Laface, C.M. Musarella, G. Spampinato

***Tagetes minuta* L. (Asteraceae)**

+ (CAS) **TAA**: Arco (Trento), tra Massone e Bolognano in loc. Gambor (CFCE: 0032/3) (WGS84: 45.919668°N, 10.908787°E), scarpata incolta, 1 pianta alta 1.5 m, molto ramificata, 150 m, 22 January 2022, leg. M. Merli, det. G. Galasso (FI, ROV No. 80115, *Herb. M Merli*). – Casual alien species new for the flora of Trentino-Alto Adige.

G. Galasso, M. Merli

***Tetradium daniellii* (Benn.) T.G.Hartley (Rutaceae)**

+ (CAS) **ITALIA (TAA)**: Ala (Trento), al termine della stradina presso la sponda destra del Fiume Adige a NE di Chiesurone (CFCE: 0232/1) (WGS84: 45.786316°N, 11.016831°E), margine stradina nella boscaglia con robinia, 147 m, 10 October 2020, F. Prosser (FI, ROV No. 79638). – Casual alien species new for the flora of Italy (Trentino-Alto Adige).

This species was identified according to Zhang and Hartley (2008). It is a plant of melliferous interest, planted near an apiary in the indicated locality. It features

abundant renewal up to 15 m away. In Europe, it sporadically escapes from cultivation, for example in southwestern Germany (Mazomeit 2016).

F. Prosser

***Thinopyrum obtusiflorum* (DC.) Banfi (Poaceae)**

+ (NAT) **LAZ**: Cittaducale (Rieti), presso Grotti, strada SR578 “Salto Cicolana”, presso lo svincolo (WGS84: 42.352123°N, 12.957368°E), incolto ruderales, 405 m, 23 November 2020, G. Filibeck, L. Cancellieri (*Herb. L. Cancellieri*); *ibidem*, 22 July 2021, G. Salerno, S. Maestri (FI, *Herb. G. Salerno*); Castel Madama (Roma), Via San Quirico (WGS84: 41.976970°N, 12.877654°E), 25 July 2021, G. Salerno (*Herb. G. Salerno*). – Naturalized alien species new for the flora of Lazio.

This species was sown in 2016 for “greening” of a highway escarpment at Grotti, and some individuals now grow also in ruderal meadows nearby. Near Castel Madama, a large population grows on a highway escarpment and nearby areas. The use of this species for embankment greening followed by local naturalization is already reported for N-Italy and Switzerland (Bertolli and Prosser 2014 and references therein; Röthlisberger 2010). A germination test on spikelets collected from the Grotti plants confirmed that the population is able to reproduce.

L. Cancellieri, G. Filibeck, S. Maestri, G. Salerno

***Triticum turgidum* L. subsp. *durum* (Desf.) Husn. (Poaceae)**

+ (CAS) **SIC**: Caltagirone (Catania) (WGS84: 37.126671°N, 14.519971°E), lungo il bordo del sentiero, 329 m, 8 April 2021, D. Azzaro, S. Cambria (FI, CAT); Terrasini (Palermo), Baia San Cataldo (WGS84: 38.088381°N, 13.079131°E), 40 m, 28 April 2021, G. Domina (SAF No. 100039). – Casual alien subspecies new for the flora of Sicily.

D. Azzaro, G. Tavilla, M. Di Stefano

***Zizania latifolia* (Griseb.) Hance ex F.Muell. (Poaceae)**

+ (CAS) **ITALIA (VEN)**: Sant’Urbano (Padova), sinistra idrografica del Canale Gorzone, ca. 220 m a E di Ponte Zane (WGS84: 45.143497°N, 11.646712°E), sponda di stagno, in bosco, 9 m, July 2021, L. Toso (FI). – Casual alien species new for the flora of Italy (Veneto).

This species was identified according to Liu and Phillips (2006). The plant is cultivated in China for food use of the young shoots and rhizomes when infected by the fungus *Ustilago esculenta* Henn. (Basidiomycota), which renders the indicated parts edible and inhibits the normal development of the synflorescence. Since the plants found do not bloom, their presence at the site is almost certainly related to this use.

E. Banfi, L. Toso, R.R. Masin, R. Pellegrini

Nomenclatural and distribution updates from other literature sources

Nomenclatural, status, distribution updates, and corrections to Galasso et al. (2018) are provided in Suppl. material 1.

G. Galasso, F. Bartolucci

Acknowledgements

We gratefully acknowledge the Acta Plantarum staff, Nicola M.G. Ardenghi, Maurizio Bovio, Antonio Giacò, Fabrizio Martini, and Lorenzo Pinzani who provided distribution information.

References

- Argenti C, Masin R, Pellegrini B, Perazza G, Prosser F, Scortegagna S, Tasinazzo S (2019) Flora del Veneto dalle Dolomiti alla laguna veneziana, Vols 1–2. Cierre edizioni, Sommacampagna (Verona).
- Atha D, Boom B (2017) Field guide to the ash trees of northeastern United States. Center for Conservation Strategy, The New York Botanical Garden, Bronx.
- Bertolli A, Prosser F (2014) Segnalazioni floristiche tridentine. IX. Annali del Museo Civico di Rovereto. Sezione: Archeologia, Storia, Scienze Naturali 29[2013]: 131–174.
- Bolpagni R (2021) Towards global dominance of invasive alien plants in freshwater ecosystems: the dawn of the Exocene? *Hydrobiologia* 848(9): 2259–2279. <https://doi.org/10.1007/s10750-020-04490-w>
- Campus G, De Pascali M (2017) Rassegna di segnalazioni notevoli riguardanti la Sardegna comparse nel forum Acta Plantarum. *Acta Plantarum Notes* 5: 68–69.
- Canzonieri A, Alessandrini A, Ardenghi NMG, Bellandi L, Colombo S, Faggi G, Ferrando U, Galasso G, Mazzeschi A, Messina A, Montanari S, Montevicchi P, Ottonello M, Paoletti R, Salvai G, Tognazzi F, Zambrini A, Zepigi M (2022) Rassegna di segnalazioni notevoli riguardanti la Toscana comparse nel forum Acta Plantarum. *Acta Plantarum Notes* 8: 161–165.
- Conti F, Bracchetti L (2016) Contributo alla conoscenza della flora vascolare della Riserva Naturale Regionale Sentina (Italia Centrale, Marche). *Natural History Sciences* 3(1): 49–52. <https://doi.org/10.4081/nhs.2016.261>
- De Natale A, Strumia S (2007) La flora della costa sabbiosa del Parco Nazionale del Cilento e Vallo di Diano (Salerno). *Webbia* 62(1): 53–75. <https://doi.org/10.1080/00837792.2007.10670816>
- Del Guacchio E, La Valva V (2017) The non-native vascular flora of Campania (southern Italy). *Plant Biosystems* 152(4): 767–779. <https://doi.org/10.1080/11263504.2017.1338626>

- Galasso G, Conti F, Peruzzi L, Ardenghi NMG, Banfi E, Celesti-Grapow L, Albano A, Alessandrini A, Bacchetta G, Ballelli S, Bandini Mazzanti M, Barberis G, Bernardo L, Blasi C, Bouvet D, Bovio M, Cecchi L, Del Guacchio E, Domina G, Fascetti S, Gallo L, Gubellini L, Guiggi A, Iamónico D, Iberite M, Jiménez-Mejías P, Lattanzi E, Marchetti D, Martinetto E, Masin RR, Medagli P, Passalacqua NG, Peccenini S, Pennesi R, Pierini B, Podda L, Poldini L, Prosser F, Raimondo FM, Roma-Marzio F, Rosati L, Santangelo A, Scoppola A, Scortegagna S, Selvaggi A, Selvi F, Soldano A, Stinca A, Wagensommer RP, Wilhalm T, Bartolucci F (2018) An updated checklist of the vascular flora alien to Italy. *Plant Biosystems* 152(3): 556–592. <https://doi.org/10.1080/11263504.2018.1441197>
- Goiran A (1900) Le piante fanerogame dell'agro veronese. Censimento, Vol. 2. G. Franchini, Verona.
- Ibaragi Y, Lim S-H, Yook M-J, Heo K-I, Chen W, Li L, Park J-S, Kim D-S (2017) A taxonomic note on the genus *Miscanthus* (Poaceae) in Korea. *Journal of Japanese Botany* 92(6): 349–368.
- Liu L, Phillips SM (2006) Tribe Oryzeae. In: Wu ZY, Raven PH, Hong DY (Eds) *Flora of China*, Vol. 22. Science Press, Beijing, Missouri Botanical Garden Press, St. Louis, 181–187.
- Lowe S, Browne M, Boudjelas S, De Poorter M (2004) 100 of the World's worst invasive alien species. A selection from the Global Invasive Species Database. Updated and reprinted version. Invasive Species Specialist Group (ISSG) of the Species Survival Commission (SSC) of the World Conservation Union (IUCN), Auckland.
- Mazomeit J (2016) Verwilderungen von *Toona sinensis*, *Tetradium dan[i]elli[i]* und *Gymnocladus dioicus* in Mannheim und an anderen Orten. *Floristische Rundbriefe* 50: 175–182.
- Ocampus G, Travis Columbus J (2012) Molecular phylogenetics, historical biogeography, and chromosome number evolution of *Portulaca* (Portulacaceae). *Molecular Phylogenetics and Evolution* 63(1): 97–112. <https://doi.org/10.1016/j.ympev.2011.12.017>
- Peruzzi L, Bedini G [Eds] (2022+) Wikipantbase #Toscana v2.1. <http://bot.biologia.unipi.it/wpb/toscana/index.html> [accessed 14.01.2022]
- Podda L, Lazzeri V, Mascia F, Mayoral García Berlanga O, Bacchetta G (2012) The checklist of the Sardinian exotic flora: an update. *Notulae Botanicae Horti Agrobotanici Cluj-Napoca* 40(2): 14–21. <https://doi.org/10.15835/nbha4028225>
- Röthlisberger J (2010) Die Steppenquecke *Elytrigia obtusiflora* – ein bemerkenswerter Neufund. *Botanica Helvetica* 120(1): 79–82. <https://doi.org/10.1007/s00035-010-0074-0>
- Verloove F (2016) *Fraxinus pennsylvanica*. In: *Manual of the alien plants of Belgium*. Botanic Garden Meise, Belgium. <https://alienplantsbelgium.myspecies.info/content/fraxinus-pennsylvanica> [accessed 22.02.2022]
- Ward DB (1977) Keys to the Flora of Florida – 4, *Nymphaea* (Nymphaeaceae). *Phytologia* 37(5): 443–448.
- Zhang D, Hartley TG (2008) *Tetradium* Loureiro. In: Wu ZY, Raven PH, Hong DY (Eds) *Flora of China*, Vol. 11. Science Press, Beijing, Missouri Botanical Garden Press, St. Louis, 66–70.

Supplementary material I

Supplementary data

Authors: Gabriele Galasso, Fabrizio Bartolucci

Data type: Species data

Explanation note: 1. Nomenclatural updates; 2. Note updates; 3. Distribution updates; 4. Synonyms, misapplied or included names.

Copyright notice: This dataset is made available under the Open Database License (<http://opendatacommons.org/licenses/odbl/1.0/>). The Open Database License (ODbL) is a license agreement intended to allow users to freely share, modify, and use this Dataset while maintaining this same freedom for others, provided that the original source and author(s) are credited.

Link: <https://doi.org/10.3897/italianbotanist.13.85863.suppl1>